

DOCUMENTING HOMERIC TEXT-REUSE IN THE *DEIPNOSOPHISTAE* OF ATHENAEUS OF NAUCRATIS

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1. *The challenge of text-reuse*

Most of the texts of ancient Greek literature are irremediably lost and preserved only through quotations and text-reuses by later authors. In the last two centuries scholars have been looking for traces of lost authors and works in surviving texts and they have been producing many collections of fragmentary authors and works.¹ Based on a *Thesaurus Linguae Graecae* (TLG) search, for the period between the eighth century BC and the third century CE inclusive, 59% of the authors are preserved only in fragments, 12% are known both from entirely preserved works and fragmentary ones, while 29% are represented by surviving works.² Such percentages reveal the great shipwreck of Greek ancient texts and the challenge of working with innumerable pieces of information about lost authors and works that are randomly preserved in our textual tradition.

The term *fragment* is the result of a long tradition of print editorial practices, where the contexts preserving traces of lost authors and works are extracted from their sources and reprinted in separate collections. Even if such editorial workflow has made an incomparable contribution to the reconstruction of the personalities of lost intellectuals, the concept of the textual *fragment* remains quite problematic and misleading. As a matter of fact, it includes a wide range of many different kinds of text-reuse and it always implies a certain degree of originality, which is very difficult to assess because the original text from which the reuse derives is always influenced and determined by the *cover text*, *i.e.* by the intention of the quoting author and the characteristics of the context where the text-reuse is preserved.³

This is the reason why we prefer to adopt the expression *text-reuse* especially in a digital environment, where it is possible to represent references to authors and works

¹ H. Strasburger, 'Umblick im Trümmerfeld der griechischen Geschichtsschreibung', in *Historiographia Antiqua. Commentationes Lovanienses in honorem W. Peremans septuagenarii editae* (Leuven 1977) 3–52; G. W. Most, *Collecting fragments. Fragmente sammeln* (Göttingen 1997).

² M. Berti, M. Romanello, A. Babeu, and G. Crane, 'Collecting fragmentary authors in a digital library', in *JCDL '09. Proceedings of the 9th ACM/IEEE-CS joint conference on digital libraries* (New York, NY 2009) 259–62.

³ G. Schepens, 'Jacoby's *FGrHist*: problems, methods, prospects', in *Collecting fragments* (n. 1, above) 144–172; G. Schepens, 'Probleme der Fragmentation. (*Fragmente der griechischen Historiker*)', in *Vom Text zum Buch*, ed. Ch. Reitz (St. Katharinen 2000) 1–29; M. Berti, 'Citazioni e dinamiche testuali. L'intertestualità e la storiografia greca frammentaria', in *Tradizione e trasmissione degli storici greci frammentari II. Atti del Terzo Workshop Internazionale. Roma, 24-26 Febbraio 2011*, ed. V. Costa (Tivoli, Roma 2012) 439–58; M. Berti, 'Collecting quotations by topic: degrees of preservation and transtextual relations among genres', *Ancient Society* 43 (2013) 269–88.

within their context of transmission and therefore as contextualized annotations. Such annotations include not only the portion of text that can be considered a reuse, but also names and geographic and scholarly provenance of reused authors with variants, titles and/or descriptions of the content of reused works, *verba dicendi* that introduce the text reuse, expressions of literary criticism, and many other linguistic and morphosyntactic features.⁴

1.1. Text-reuse in the *Deipnosophistae* of Athenaeus of Naucratis

The *Deipnosophistae* of Athenaeus of Naucratis is not only an erudite and literary encyclopedia of a myriad of curiosities about classical antiquity, but also an invaluable collection of quotations of ancient authors, ranging from Homer to tragic and comic poets and lost historians. Since the large majority of the works cited by Athenaeus is nowadays lost, this compilation is a sort of reference tool for every scholar of Greek theatre, poetry, historiography, botany, zoology, and many other topics.⁵

In the *index scriptorum* of the Teubner edition Georg Kaibel lists 809 entries, while in the last edition of the Loeb Classical Library collection S. Douglas Olson has produced an index including *authors, texts, and persons* with 2572 entries.⁶ Olson labels personal names with brief identifiers that help to reach an estimate of the number of occurrences of authors and works quoted in the *Deipnosophistae*. According to this index, it is possible to establish the following numbers for some of the most cited authors in the text: 227 historians, 118 comic poets, 91 philosophers, 74 grammarians, and 34 tragic poets. Even if such identifiers derive not only from Athenaeus' information but are also the result of modern classifications and there are authors who can be inserted into more than one genre (*e.g.*, Hegesianax of Alexandria Troas, who is labelled as tragic poet, actor, and historian), these numbers are nevertheless useful to get an idea of the importance of the *Deipnosophistae* for the reuse of Classical authors.⁷

The number of authors cited by Athenaeus can be estimated with a certain degree of precision thanks to the explicit references to them within the *Deipnosophistae*. More difficult is to establish the number of reuses of other sources and texts by the Naucraticites. Especially in the case of paraphrases and allusions, this number depends on many different possible interpretations of the context, as we will see below where we discuss examples for documenting Homeric reuses in the *Deipnosophistae*.

⁴ B. Almas and M. Berti, 'Perseids collaborative platform for annotating text re-uses of fragmentary authors', in *DH-Case 2013. Collaborative annotations in shared environments: metadata, vocabularies and techniques in the digital humanities*. Florence, September 10, 2013 (New York, NY 2013).

⁵ G. Zecchini, *La cultura storica di Ateneo* (Milano 1989); D. Braund and J. Wilkins, *Athenaeus and his world. Reading Greek culture in the Roman empire* (Exeter 2000); C. Jacob, 'Ateneo, o il dedalo delle parole', in *Ateneo, I Deipnosophisti. I dotti a banchetto*, ed. L. Canfora, I (Roma 2001) xi–cxvi; D. S. Olson, 'Introduction', in *Athenaeus. The Learned Banqueters*, ed. D. S. Olson, I (Cambridge, MA 2006), vii–xix; D. Lenfant, *Athénée et les fragments d'historiens. Actes du Colloque de Strasbourg (16-18 Juin 2005)* (Paris 2007); C. Jacob, *The Web of Athenaeus* (Washington, DC 2013).

⁶ G. Kaibel, *Athenaei Navcratitae Dipnosophistarvm Libri XV*, III (Lipsiae 1890) 565–676; D. S. Olson, *Athenaeus. The Learned Banqueters*, VIII (Cambridge, MA 2012) 219–360. For a digital and searchable version of these indices, see <http://www.digitalatheneus.org>.

⁷ On the issue of modern genre categories for classifying ancient authors, see Berti, 'Collecting quotations' (n. 3, above). For a recent deep analysis of Athenaeus' quotations on the topic of *corrupting luxury*, see R. J. Gorman and V. B. Gorman, *Corrupting luxury in ancient Greek literature* (Ann Arbor 2014).

The text of Athenaeus is important not only for the number of authors and works he quotes, but also for the kind of quotations he preserves. Athenaeus' standard citation includes the name of the author with additional information like ethnic origin and literary category, the title of the work, and the book number (e.g., 2.84). He often remembers the amount of papyrus scrolls of huge works (e.g., 6.15–16; 6.54), while distinguishing various editions of the same comedy (e.g., 1.52; 4.71; 6.51; 7.54; 9.5) and different titles of the same work (e.g., 1.7). He also adds biographical information to identify homonymous authors and classify them according to literary genres, intellectual disciplines, and schools (e.g., 1.22; 9.37). He provides chronological and historical indications to date authors (e.g., 10.79; 13.72), and he often copies the first lines of a work following a method that probably goes back to the *Pinakes* of Callimachus (e.g., 1.7; 3.31; 8.28; 5.45; 13.33).⁸

1.2. Homeric reuse in the *Deipnosophistae*

In the index of the *Deipnosophistae* Olson labels 20 authors as epic poets, who are cited by Athenaeus.⁹ Among them appears Homer, whose name is mentioned 34 times with 220 quotations of the *Iliad* and 225 quotations of the *Odyssey*.¹⁰ Athenaeus defines Homer as 'divine' (2.13; 5.1) and the 'king of the poets' (2.11). The Naucratis shows a deep knowledge of Homer and the scholarship about him, and the *Deipnosophistae* is a very important source for detecting reuses and linguistic interpretations of Homeric poetry.

We have decided to start annotating the reuses of the *Iliad* in the text of Athenaeus for different reasons, beside the importance of this author in the *Deipnosophistae* in particular and in Greek culture in general:

- The Homeric poems are extant works and the comparison of these texts with their reuses in the *Deipnosophistae* helps us better to investigate and understand the attitude of Athenaeus to quoting and reusing other authors.
- The possibility of aligning Athenaeus' reuses to the Homeric texts shows the challenges that philologists have to deal with when trying to establish a rigorous method for annotating text-reuse phenomena.
- This paper aims to describe ongoing work on documenting and producing citable analyses of text-reuse in the *Deipnosophistae* of Athenaeus of Naucratis, using and implementing a model that has been originally developed for the *Homer Multitext* project.¹¹

⁸ Jacob, 'Ateneo' (n. 5, above); C. Jacob, 'La citation comme performance dans les *Deipnosophistes* d'Athènes', in *La citation dans l'antiquité. Actes du Colloque du PARSIA. Lyon, ENS LSH, 6-8 Novembre 2002*, ed. C. Darbo-Peschanski (Grenoble 2004) 147-74; Jacob, *The Web of Athenaeus* (n. 5, above).

⁹ On the problematic category of "epic poet" in Athenaeus, see D. Bouvier, 'Usage et autorité de l'épique homérique chez Athénée', in *Athénée et les fragments d'historiens* (n. 5, above) 305-19.

¹⁰ On the difficulty of getting a precise number of Homeric quotations in Athenaeus, see C. Bréchet, 'Du «grand livre» homérique aux *Deipnosophistes*: exploration d'un continuum', in *Athénée et les fragments d'historiens* (n. 5, above) 321-40.

¹¹ C. Dué and M. Ebbott, *The Homer multitext* (Washington, DC 2001); <http://www.homermultitext.org>.

2. Data model

2.1. Editions and citation schemes of the *Deipnosophistae*

In spite of the debate about a possible division of the *Deipnosophistae* into thirty books, modern editors have been using two different systems for enumerating and referring to the text of the fifteen books of Athenaeus.¹² After the reference to the book number (1–15), the two systems differ in the division into paragraphs:

1. The first system dates back to the edition of Isaac Casaubon (1597). After the reference to the book number, this system includes an arabic numeral referring to the page of the edition of Casaubon followed by a letter (A-F) corresponding to the subdivision of the page into sections of about ten lines of text (e.g., 15.683b).
2. The second system was introduced by Georg Kaibel in his Teubner edition (1887–1890). In this system each book is logically divided into paragraphs corresponding to units of sense and the paragraphs are referred to with arabic numerals whose numeration starts again at the beginning of each book (e.g., 12.40).¹³

2.2. How we cite Athenaeus

We use Kaibel's citations, because they are truly canonical, independent of any particular manifestation of the text; they apply equally well across editions, and to translations. Casaubon citations are by definition tied to page-breaks in a particular edition and are therefore not *logical*, and thus will not serve well as *canonical* citations for scholarship in a digital environment (even though they are *traditional*).¹⁴ Kaibel citations — book, paragraphs — are well suited to our digital environment, and in particular to the CTS protocol, which is the basis for our data-model.

CTS, for Canonical Text Services, is a protocol for identifying and retrieving passages of text based on concise, machine-actionable canonical citation. It is based on the observation by Smith and Weaver that a 'text' can be modelled as 'an ordered hierarchy of citation objects' (OHCO²).¹⁵

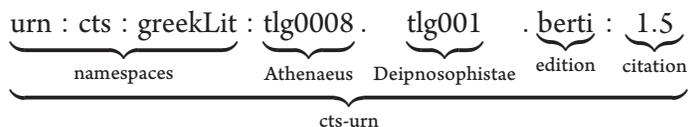
¹² Zecchini, *La cultura storica di Ateneo* (n. 5, above) 10-24; W. G. Arnott, 'Athenaeus and the Epitome. Texts, manuscripts and early editions', in *Athenaeus and his world* (n. 5, above) 41–52.

¹³ For an online Casaubon-Kaibel reference converter, see http://www.digitalatheneus.org/tools/Casaubon-Kaibel_converter.

¹⁴ We use 'canonical', here, to mean (a) independent of any particular edition, and (b) aligned to inherent units of the text. Some might prefer 'logical citation'. In either case, the Casaubon citations (by page number) are inferior to Kaibel's.

¹⁵ In 1990, DeRose, Durand, and Mylonas asked 'What is text, really?' (S. DeRose, D. Durand, E. Mylonas, and A. Renear, 'What is text, really?', *Journal of computing in higher education* 1 (1990) 3–26), arguing that a 'text' is an 'ordered hierarchy of content objects,' a formulation that came to be known as OHCO. This immediately raised the question, What is 'content'? Does XML markup count as content? Editorial notes? If one digital edition of a Greek text uses combining diacritical marks in the Unicode character set, and another uses precombined marks, do they have the same content? Smith and Weaver argue that a better functional definition of 'text' has the 'citation object' as its fundamental unit, and so proposed OHCO². CTS is built on this definition, and affords the freedom to express the content of any citation object in various ways according to technical and scholarly needs. D. N. Smith and G. Weaver, 'Applying domain knowledge from structured citation formats to text and data mining: examples using the CITE Architecture', *Text Mining Services* (2009) 129; C. W. Blackwell and D. N. Smith, 'Four URLs, limitless apps: separation of concerns in the Homer Multitext Architecture', in *Donum natalicium digitaliter confectum Gregorio Nagy septuagenario a discipulis collegis familiaribus oblatum*, ed. L. Muellner (Washington, DC 2012): <http://chs.harvard.edu/CHS/article/display/4846>

The CTS URN standard for citation used by the *Homer Multitext*, the Perseus Digital Library, and the *Open Greek and Latin* projects documents `urn:cts:greekLit:tlg0008.tlg001`: as the URN identifying Athenaeus' *Deipnosophistae*; this follows, where possible, the identifying numbers in the *TLG Canon of Greek Authors and Works*.¹⁶ To this work-level identifier, we add a version-level identifier, to cite one specific edition, and a passage component, allowing us to capture the complete semantics of a text.¹⁷ For example, *Deipnosophistae* 1.5 can be cited:



CTS URNs can identify passages more grossly or more finely; they can identify a range of passages at various levels of specificity; by the addition of an *indexed substring*, a CTS URN can identify a particular string within a passage of text.

URN	Identifies...
<code>urn:cts:greekLit:tlg0008.tlg001.berti:1</code>	<i>Deipnosophistae</i> , Book 1
<code>urn:cts:greekLit:tlg0008.tlg001.berti:1.18</code>	<i>Deipnosophistae</i> , Book 1, Paragraph 18
<code>urn:cts:greekLit:tlg0008.tlg001.berti:1.18-1.19</code>	<i>Deipnosophistae</i> , 1.18 through 1.19
<code>urn:cts:greekLit:tlg0008.tlg001.berti:1.18-2</code>	<i>Deipnosophistae</i> , 1.18 through (all of) Book 2
<code>urn:cts:greekLit:tlg0008.tlg001.berti:1.18@καὶ[17]</code>	<i>Deipnosophistae</i> , the 17th instance of καὶ in 1.18
<code>urn:cts:greekLit:tlg0008.tlg001.berti:1.18@καὶ[17]-1.18@αὐτοί[1]</code>	<i>Deipnosophistae</i> , a range of text within 1.18

CTS is one component of a larger digital library architecture, developed for the *Homer Multitext* and called CITE, for “Collections, Indices, Texts, and Extensions”.¹⁸

2.3. How we document text-reuse

Documenting text-reuse declaratively requires us to cite imprecisely and precisely, and to work with real texts and notional texts, by turns. An instance of text-reuse may appear in a span of text that includes other words — particles, *verba dicendi*, etc. We need to cite that span of Athenaeus' text as containing the text-reuse, even if the containing span includes words that are not reused from the original source. At the same time, we need to document the text-reuse with precision. We are working specifically with Homeric text-reuse, and so

¹⁶ L. Berkowitz and K. A. Squitier, *Thesaurus Linguae Graecae: Canon of Greek Authors and Works*, 3rd edn (New York, NY 1990).

¹⁷ C. W. Blackwell and D. N. Smith, ‘CTS URN Specification 2.0.’ (Washington, DC 2014): <http://cite-architecture.github.io/>.

¹⁸ Blackwell and Smith, ‘Four URLs’ (n. 15, above).

to justify our identification of language as text-reuse we need to cite an edition of the *Iliad* or *Odyssey* as evidence in support. Our earliest complete edition of the *Iliad* dates from the 10th century CE, and so we must inevitably recognize, and document, the fact that Athenaeus was not re-using any specific, extant, edition of the *Iliad* that we can identify.

2.4. Editions of the Iliad

The CTS URN for the Homeric *Iliad* is `urn:cts:greekLit:tlg0012.tlg001:`, identifying a notional work that includes every edition and translation. For our documentation, we cite three distinct Iliadic editions:

- `urn:cts:greekLit:tlg0012.tlg001.perseus-grc:` The digital edition of the Perseus Digital Library, based on that of T. W. Allen.
- `urn:cts:greekLit:tlg0012.tlg001.ogl1:` An Open Greek and Latin edition of the “*Iliad* of Athenaeus”, consisting of the collected Iliadic language of the *Deipnosophistae*.
- `urn:cts:greekLit:tlg0012.tlg001.ogl2:` Another Open Greek and Latin edition of the “*Iliad* of Zenodotus, according to Athenaeus”, consisting of Iliadic language attributed to Zenodotus’ edition (ἔκδοσις) in the *Deipnosophistae*.

These are explained further below.

2.5. Six records

The CTS protocol serves our needs well, as it allows us to work with both notional works (*Iliad*) and specific editions of works, and to identify text according to the edition’s citation hierarchy (*Iliad* 1.20) or according to specific spans of text-content. CTS alone is not sufficient because we need not only to cite and retrieve texts and portions of text, but because we also need to represent and document different pieces of text reuse information. This is the reason why our data model specifies six pieces of information to document text-reuse:

1. **Analysis Record URN.** Every documented instance of text-reuse has a CITE URN, uniquely identifying this instance in a CITE collection. *E.g.* `urn:cite:opdata:ahri:100` (‘item 100 in the **ahr** collection [Athenaeus’ Homeric Reuse: *Iliad*], in the **opdata** namespace’).
2. **Sequence Number.** The collection of instances of Homer text-reuse is an *ordered collection*; each item has a sequence number, reflecting the item’s sequence in the text of the *Deipnosophistae*. This value is programmatically generated by a CTS-aware script before publication of the collection.
3. **Analysed Text.** A CTS URN defining, as precisely *or imprecisely* as necessary, the span of text in the *Deipnosophistae* that is the subject of this analysis of text-reuse. The scope of the Analysed Text is determined by the nature of the text-reuse.
4. **Reused Text.** While the **Analysed Text URN** (above) identifies a coherent and contiguous span of text, as it appears in the Edition being analysed, the **Reused Text** is a string identifying only the text being reused. The **Analysed Text URN** provides context and a basis for alignment, while the **Reused Text** gives us the

flexibility to call out non-contiguous text, to normalize text, or even to promote morphological forms determined by indirect statement to those appropriate for direct speech, without doing violence to our source-Edition.

5. **Alignment URN.** This collection documents reuse of Homeric poetry, for which we have extant editions with canonical citation. The Alignment URN is a CTS URN pointing to one specific edition of the *Iliad* that (a) justifies our claim of text-reuse, and (b) is the basis for attaching an Iliadic citation to this analysis. We use the Perseus edition (`urn:cts:greekLit:tlg0012.tlg001.perseus-grc:`) for our Alignment URNs.
6. **Analytical Edition URN.** The collected instances of Iliadic text-reuse in the *Deipnosophistae* represent a new edition of the *Iliad*, whose text-content is based on our analysis of our project's edition of Athenaeus. The **Analytical Edition URN** is a CTS URN to an "Athenaeus Edition" of the *Iliad*; the citation-value is based on that of the **alignment URN**; the text-content of this edition is the **reused text** in Athenaeus. The Analytical Edition gives us an orthogonal view of the Homeric text-reuse in Athenaeus; it allows us to navigate Athenaeus according to the OHCO² structure of the *Iliad*.¹⁹ We cite two notional editions in this field. `urn:cts:greekLit:tlg0012.tlg001.og11:` is "Athenaeus' edition of the *Iliad*." We also cite, in at least one analysis, `urn:cts:greekLit:tlg0012.tlg001.og12:`, which is 'Zenodotus' edition of the *Iliad*, according to Athenaeus'; this is discussed in the section of examples, below.

These six pieces of information document uniquely and precisely each instance of text-reuse that we have analysed while maintaining a separation of concerns and the integrity of our data. While each analysis is an interpretive act, these six pieces of information allow subsequent readers to evaluate and criticize each analysis with full access to its context. Furthermore, because all of this analytical work is external to the text, each analysis is non-exclusive. This approach would admit conflicting analyses of the same passage, mutually incompatible delineations of quotations or paraphrases, by different scholars, but all subject to citation and attribution.

3. Examples and discussion

3.1. Example: direct quotation (with a complication)

At *Deipnosophistae* 1.18 Athenaeus discusses how Homer equates drunkenness with madness:

καὶ Ἀγαμέμνων δὲ λέγει πῶς περὶ αὐτοῦ ‘Ἄλλ’ ἐπεὶ ἀσάμην φρεσὶ λευγαλέησι
 πιθήσας |^B ἢ οἴνω μεθύων, ἢ μ’ ἔβλαψαν θεοὶ αὐτοί,’ εἰς τὴν αὐτὴν τιθεὶς πλάστιγγα
 τὴν μέθην τῇ μανίᾳ. — Ath. 1.18

¹⁹ For example, we can cite the word 'snake' (ὄφεις) that appears in Athen. 11.53 with the CTS-URN `urn:cts:greekLit:tlg0008.tlg001.berti:11.53@ὄφεις[1]`, giving us access to the word in its immediate context in the *Deipnosophistae*. But we will also be able, using its Analytical Edition URN, to locate it at *Iliad* 22.93 in 'Athenaeus' *Iliad*, and compare it to the word 'serpent' (δράκων) at 22.93 in other editions of the *Iliad*. By virtue of this Analytical Edition, we can use the CTS protocol to retrieve all text-content associated with *Iliad* 22.93, wherever it may fall in Athenaeus, or all text-content identified with *Iliad* Book 22.

And Agamemnon says, somewhere, about himself, ‘**A**But since I acted foolishly, obeying my addled thoughts | **B**either I was drunk with wine, or the gods themselves harmed me,’ placing drunkenness on the same balance as insanity.

So the text under analysis here is more specific than Athen. 1.18, and our **Analysed Text URN** adds substrings-references to focus more precisely:

```
urn:cts:greekLit:tlg0008.tlg001.berti:1.18@καὶ [17]-
1.18@αὐτοί [1]
```

That is, ‘from the seventeenth instance of the string καὶ in 1.18 of this edition, through the first instance of αὐτοί in 1.18 of this edition’. The Homeric text under analysis here is ἀλλ’... αὐτοί, but our ‘analysed text’ begins from καὶ Ἀγαμέμνων ... because the introductory clause is the signal that Athenaeus is quoting from Homer.

The passage contains two lines of dactylic hexameter poetry. It will yield two records in our text-reuse data; for this discussion, these will be (A) and (B). The first is most straightforward, being a direct quotation of Homer that matches established editions of the *Iliad*. We can begin by assigning an **Analysis Record URN** and fill in the other data fields thus:

Instance	Field	Value
A	Analysis Record URN	urn:cite:opdata:ahri:100
A	Sequence	100
A	Analysed Text URN	urn:cts:greekLit:tlg0008.tlg001.berti:1.18@καὶ [17]-1.18@αὐτοί [1]
A	Reused Text	ἀλλ’ ἐπεὶ ἀσάμην φρεσὶ ληνγαλέησι πιθήσας
A	Alignment URN	urn:cts:greekLit:tlg0012.tlg001.perseus-grcl:9.119
A	Analytical Edition URN	urn:cts:greekLit:tlg0012.tlg001.og101:9.119

The first line of poetry in this passage of Athenaeus is found *verbatim* in *Iliad* 9.119, when Agamemnon is expressing remorse for the quarrel with Achilles. This will be the 100th instance of text-reuse in our collection of Iliadic text-reuse in Athenaeus. This instance of reuse emerges when we analyse the passage that begins ‘And Agamemnon says, somewhere....’ The specific reused text in the passage under analysis is ἀλλ’ ... πιθήσας. This instance aligns with 9.119 in the Perseus edition of the *Iliad*. In the “*Iliad* according to Athenaeus’ *Deipnosophistae*,” we can identify this text as 9.119, following the canonical citation of the poem.

The second instance is more complicated, since Athenaeus is quoting a line that does not appear in any (other) edition of the *Iliad*. It will share some data values with (A), but differ in others. The fields that differ are in bold-face, below:

Instance	Field	Value
B	Analysis Record URN	urn:cite:opdata:ahri:101
B	Sequence	101
B	Analysed Text URN	urn:cts:greekLit:tlg0008.tlg001.berti:1.18@καὶ [17]-1.18@αὐτοί [1]

B	Reused Text	ἦ οἶνον μεθύων ἦ μ' ἐβλαψαν θεοὶ αὐτοί
B	Alignment URN	urn:cts:greekLit:tlg0012.tlg001.perseus-grc1:9.119
B	Analytical Edition URN	urn:cts:greekLit:tlg0012.tlg001.og101:9.119a

In our editorial judgement, the dactylic hexameter text ἦ ... αὐτοί is an instance of Homeric text-reuse. It is assigned its own **Analysis Record URN**. This finding is the result of our analysis of the text at:

urn:cts:greekLit:tlg0008.tlg001.berti:1.18@καὶ [17] -
1.18@αὐτοί [1]

So (B) shares the same **Analysed Text URN** as (A). The text of (B) is after that of (A) in the text of Athenaeus, so (B) has a **Sequence** number one higher than that of (A). The **Analysed Text** passage, in our judgement, presents (A) and (B) as a natural sequence, rather than two quotations juxtaposed by Athenaeus.²⁰ Because we have an **Alignment URN** that locates (A) in the *Iliad*, and because the **Analysed Text** unites (A) and (B), we can use urn:cts:greekLit:tlg0012.tlg001.perseus-grc1:9.119 as the **Alignment URN** for (B) as well. However, in our ‘Athenaeus Edition’ of the *Iliad*, (B) is an additional citeable passage, which we identify as **9.119a**.

3.2. Example: reordering and collision

At *Deipnosophistae* 1.5 Athenaeus provides advice for wealthy hosts; the advice consists of an assemblage of clauses, phrases, and words reused from various places in the *Iliad*.

τοιούτους ἔδει καὶ τοὺς λοιποὺς εἶναι πλείους· ὡς τοῖς γε μὴ τοῦτο ποιούσιν ἐρεῖ τις τί μικρολόγος εἶ; ^Aπλεῖαί τοι οἴνου κλισίαι· ^Bδαίνυ δαῖτα γέρουσι ^Cθάλειαν· ^Dἔοικέ τοι. — Ath. 1.5

The rest of rich men ought to be like that. For to those who do not practice such hospitality one may say, ‘Why are you so stingy?’ ^A‘Surely your tents are full of wine;’ ^Bspread for the elders a feast, ^Ca bountiful one. ^DIt is fitting for you.’

Three of these are found in *Iliad* 9.70–9.72:

^Bδαίνυ δαῖτα γέρουσιν· ^Dἔοικέ τοι, οὗ τοι ἀεικέες.
^Aπλεῖαί τοι οἴνου κλισίαι, τὸν νῆες Ἀχαιῶν
ἡμάτια Θρήκηθεν ἐπ’ εὐρέα πόντον ἄρουσι·
— *Iliad* 9.70–9.72

^BGive a banquet for the elders; ^Dit is fitting, and not at all unseemly. ^AThe tents are full of wine, which the ships of the Achaeans, on a daily basis, from Thrace upon the wide sea convey.

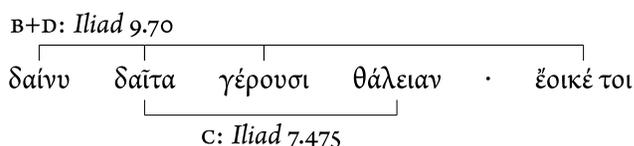
Athenaeus adds the adjective θάλειαν, ‘bountiful’, to the word ‘feast’ (δαῖτα); this noun-epithet pair does not occur in 9.70–9.72, but does occur at the end of the long passage on the logistics of wine in the Achaean camp, from *Iliad* 7.466–7.475:

²⁰ Athenaeus says, ‘These verses (τὰ ἔπη) were cited (προηγέκατο) in this form by Dioscourides, student of Isocrates’ (Athen. 1.18).

ἐνθεν οἰνίζοντο κάρη κομόωντες Ἀχαιοί,
 ἄλλοι μὲν χαλκῷ, ἄλλοι δ' αἰθῶνι σιδήρῳ,
 ἄλλοι δὲ ῥινοῖς, ἄλλοι δ' αὐτῆσι βόεσσιν,
 ἄλλοι δ' ἀνδραπόδεσσιν· τίθεντο δὲ **δαῖτα θάλειαν**.
 — *Iliad* 7.472-475

From these ships, the long-haired Achaeans bought wine,
 Some for bronze, some for shining iron,
 Some for hides, some for whole cattle,
 Others for slaves. And they laid out a ^Cbountiful feast.

This text-reuse is straightforward, in that it consists of direct quotation. It is complex in that the quotations are small portions of the source text and do not follow the source-text's order. Furthermore, (B+D) and (C) collide:



Our data model allows us to capture these four instances of reuse, with specificity, retaining their sequence according to Athenaeus and their sequence in the *Iliad*, recording the fact that δαίνυ δαῖτα γέρουσι is a direct quotation from one Iliadic passage, and δαῖτα θάλειαν is a direct quotation from another:

Instance	Field	Value
A	Analysis Record URN	urn:cite:opdata:ahri:200
A	Sequence	200
A	Analysed Text URN	urn:cts:greekLit:tlg0008.tlg001.berti:1.5@πλεῖται[1]-1.5@κλισίαι[1]
A	Reused Text	πλεῖται τοι οἴνου κλισίαι
A	Alignment URN	urn:cts:greekLit:tlg0012.tlg001.perseus-grc1:9.71@πλεῖται[1]-9.71@κλισίαι[1]
A	Analytical Edition URN	urn:cts:greekLit:tlg0012.tlg001.og101:9.71

is the most straightforward example: a contiguous passage from the *Iliad*, quoted directly by Athenaeus.

Instance	Field	Value
B,D	Analysis Record URN	urn:cite:opdata:ahri:201
B,D	Sequence	201
B,D	Analysed Text URN	urn:cts:greekLit:tlg0008.tlg001.berti:1.5@δαίνυ[1]-1.5@τοι[1]
B,D	Reused Text	δαίνυ δαῖτα γέρουσι ξοικέ τοι
B,D	Alignment URN	urn:cts:greekLit:tlg0012.tlg001.perseus-grc1:9.70@δαίνυ[1]-9.70@τοι[1]

B,D Analytical Edition urn:cts:greekLit:tlg0012.tlg001.og101:9.70
URN

Here the **Analysed Text** is the string δαίνυ ... τοι in Athen. 1.5, (B) and (D) above; this includes the word θάλειαν. The **Reused Text** that we define for this instance of reuse, however, does not include θάλειαν, but only the text found in *Iliad* 9.70.

Instance	Field	Value
C	Analysis Record URN	urn:cite:opdata:ahri:202
C	Sequence	202
C	Analysed Text URN	urn:cts:greekLit:tlg0008.tlg001.berti:1.5@ δαῖτα[1]-1.5@θάλειαν[1]
C	Reused Text	δαῖτα θάλειαν
C	Alignment URN	urn:cts:greekLit:tlg0012.tlg001.perseus-grc1:7.475@ δαῖτα[1]-7.475@θάλειαν[1]
C	Analytical Edition URN	urn:cts:greekLit:tlg0012.tlg001.og101:7.475

This instance of text-reuse maps specifically to the noun-epithet δαῖτα θάλειαν in Athenaeus 1.5, and the same string is the **Reused Text**. We associate this *Iliad* 7.475, where that noun-epithet pair occurs.

With these three records, we have documented completely this cluster of text-reuse in Athenaeus 1.5. The sequence and integrity of Athenaeus' text is preserved; we have clear and specific mappings to an edition of the *Iliad*; and we have an unambiguous statement of the reused textual content for each instance.

3.3. Example: Homeric etymologies of individual words

Athenaeus draws on Homeric poetry in discussions of the etymologies of particular words. In these cases, our documentation of text-reuse must capture (a) the contextual passage in Athenaeus, (b) the specific word under discussion in Athenaeus, (c) the one (or more!) examples he points to in Homeric epic. For example, his discussion of the Greek word κισσύβιον, a kind of drinking cup, is full of Homeric allusions, including a quotation from *Odyssey* 18.17 and a possible allusion to *Odyssey* 9.345–9.346. With the *Iliad* as evidence, Athenaeus offers several speculative etymologies. The one that concerns us here is the association of κισσύβιον with the Epic word χειή, a serpent's lair.

εικάσειε δ' ἄν τις τὸ κισσύβιον τὸ πρῶτον ὑπὸ ποιμένων ἐργασθῆναι ἐκ κισσίνου ξύλου. ἄλλοι δὲ ἐτυμολογοῦσιν αὐτὸ ἀπὸ τοῦ χειῖσθαι, τὸ δ' ἐστὶ χωρεῖν — οὐδὸς δ' ἀμφοτέρους ὅδε χεισεται — καὶ ἢ τοῦ Ἄδφρωος κατὰδυσις^{BC} χειή, ἢ καταδεχομένη τὸ ζῶον. καὶ κήθιον τὸ χήτιον τὸ χωροῦν τοὺς ἀστραγάλους. Διονύσιος δ' ὁ Σάμιος ἐν τοῖς περὶ τοῦ Κύκλου τὸ Ὅμηρικὸν κισσύβιον κυμβίον ἔφη γράφων οὕτως· καὶ αὐτὸν Ὀδυσσεὺς ὁρῶν ταῦτα ποιοῦντα πληρώσας τοῦ οἴνου κυμβίον δίδωσι πιεῖν. — Athen. 11.53

One may speculate that the *kissybion* was originally made by shepherds out of ivy wood. But others etymologize it from *cheisthai*, and that is 'to contain' — 'This threshold will contain us both.' — and the **hiding-place of a serpent is a^{BC}cheie'**,

the thing which shelters the animal. And there is the *kēthion*, the box (*chētion*) that contains (*chōreō*) the dice. And Dionysius the Samian in *On the Cycle* said that the Homeric *kissybion* is a *kymbion*, writing thus: ‘When Odysseus saw him doing that, he filled a *kymbion* with wine and gave it to him to drink.’

The source for this Homeric etymology is a three-line passage in the *Iliad*, 22.93–22.95:

ὡς δὲ ἄδράκων ἐπὶ β^Bχειῆ ὀρέστερος ἄνδρα μένησι
 βεβρωκῶς κακὰ φάρμακ’, ἔδν δέ τέ μιν χόλος αἰνός,
 σμερδαλέον δὲ δέδορκεν ἔλισσόμενος περὶ ^Cχειῆ·
 — *Iliad* 22.93–22.95

As when a mountain ^Aserpent in its ^Blair awaits a man
 having grazed on evil herbs, and dread wrath has come upon him,
 and he looks terrible, coiled around in his ^Clair.

To capture the context of this specific text-reuse, our **Analysed Text URN** will identify the large passage in Athenaeus that discusses the word and its various possible etymologies. As editors, we are asserting an association between Athen. 11.53 and *Iliad* 22.93–22.95. Athenaeus mentions a ‘serpent’s lair,’ and so does Homer; we need to make the association precise and complete, and this requires three analysis records, each of which points to the same **Analysed Text URN**. The first associate’s Athenaeus’ word for ‘serpent’ (ὄφεως) with Homer’s (δράκων). The second and third associate the *same* word in the Athenaeus passage, *χειῆ*, with the *two* instances of that in *Iliad* 22.93–22.95.

Instance	Field	Value
A	Analysis Record URN	urn:cite:opdata:ahri:100
A	Sequence	100
A	Analysed Text URN	urn:cts:greekLit:tlg0008.tlg001.berti:11.53@εἰκάσειε[1]-11.53@πειῖν[1]
A	Reused Text	ὄφεως
A	Alignment URN	urn:cts:greekLit:tlg0012.tlg001.perseus-grc1:22.93@δράκων[1]
A	Analytical Edition URN	urn:cts:greekLit:tlg0012.tlg001.og101:22.93
Instance	Field	Value
B	Analysis Record URN	urn:cite:opdata:ahri:101
B	Sequence	101
B	Analysed Text URN	urn:cts:greekLit:tlg0008.tlg001.berti:11.53@εἰκάσειε[1]-11.53@πειῖν[1]
B	Reused Text	χειῆ
B	Alignment URN	urn:cts:greekLit:tlg0012.tlg001.perseus-grc1:22.93@χειῆ[1]
B	Analytical Edition URN	urn:cts:greekLit:tlg0012.tlg001.og101:22.93

Instance	Field	Value
C	Analysis Record URN	urn:cite:opdata:ahri:102
C	Sequence	102
C	Analysed Text URN	urn:cts:greekLit:tlg0008.tlg001.berti:11.53@εἰκάσειε[1]-11.53@πιεῖν[1]
C	Reused Text	χειή
C	Alignment URN	urn:cts:greekLit:tlg0012.tlg001.perseus-grc1:22.95@χεῖη[1]
C	Analytical Edition URN	urn:cts:greekLit:tlg0012.tlg001.og101:22.95

We can read the three records thus: The passage in Athenaeus 11.53, from ‘One may speculate ...’ to ‘... to drink’, reuses language from the Homeric *Iliad* to propose an etymology; the word ὄφεως in Athenaeus corresponds to δράκων in *Iliad* 22.93; we align Athenaeus’ χειή with the instance of χειή *Iliad* 22.93 and that at *Iliad* 22.95 (in the Perseus edition). We thus have two poetic lines in our notional ‘*Iliad* according to Athenaeus’. The first, 22.93, has textual content ὄφεως χειή, and the second, 22.95, has textual content ‘χειή’.

3.4. Example: direct quotation with author’s analysis

We are concerned to be precise about *identity*. At *Deipnosophistae* 1.20, Athenaeus discusses how a line of the *Iliad* should be punctuated (at stake is the proper time to remove the tables during a dinner party):

τῷ δὲ μὴ αἶρεσθαι τὰς τραπέζας ἐναντιοῦσθαι δοκεῖ τὸ ἐν Ἰλιάδι: ^Aἔσθων καὶ πίνων· ἔτι καὶ παρέκειτο τράπεζα. ἀναγνωστέον οὖν οὕτω· ^Bἔσθων καὶ πίνων ἔτι· καὶ παρέκειτο τράπεζα, ἢ τὸν καιρὸν αἰτιάσθαι τὸν παρόντα δεῖ. — Ath. 1.20

That the tables were removed seems to be refuted by this part of the *Iliad*: ^A**He had been eating and drinking, with the table still standing beside him.** And so it ought to be read: ^B**He had been eating and drinking still, while the table stood beside him,** or we must judge this to be a special case.

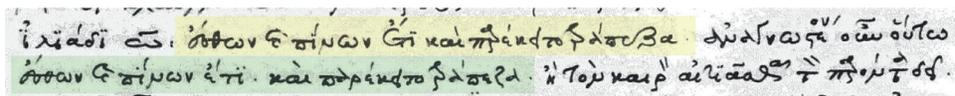


Figure 1: *Deipnosophistae* 1.20 in Parisinus Suppl. Gr. 841 (fifteenth century). The two versions of the Iliadic line are highlighted; the second shows a *mesē stigmē* after ἔτι.

The two poetic lines, marked (A) and (B) above, are two different interpretations of *Iliad* 24.476. We clearly have *two* instances of text-reuse here. At the same time, Athenaeus clearly considers these two to be the *same* line of the *Iliad*; the difference is in Athenaeus’ text, his punctuation, not in the Iliadic text. Because our data model separates concerns, we can document this thus:

Instance	Field	Value
A	Analysis Record URN	urn:cite:opdata:ahri:300
A	Sequence	300
A	Analysed Text URN	urn:cts:greekLit:tlg0008.tlg001.berti:1.20@τὸ[3]-1.20@τράπεζα[5]
A	Reused Text	ἔσθων καὶ πίνων ἔτι καὶ παρέκειτο τράπεζα
A	Alignment URN	urn:cts:greekLit:tlg0012.tlg001.perseus-grc1:24.476
A	Analytical Edition URN	urn:cts:greekLit:tlg0012.tlg001.og101:24.476

Instance	Field	Value
B	Analysis Record URN	urn:cite:opdata:ahri:301
B	Sequence	301
B	Analysed Text URN	urn:cts:greekLit:tlg0008.tlg001.berti:1.20@τὸ[3]-1.20@τράπεζα[6]
B	Reused Text	ἔσθων καὶ πίνων ἔτι καὶ παρέκειτο τράπεζα
B	Alignment URN	urn:cts:greekLit:tlg0012.tlg001.perseus-grc1:24.476
B	Analytical Edition URN	urn:cts:greekLit:tlg0012.tlg001.og101:24.476

The two records of text-reuse differ in their **Analysis Record** and **Sequence**. They differ, too, in their **Analysed Text URN**. For the first passage, we identify as analysed text the (first) instance of the quotation from *Iliad* 24.476, beginning from τὸ ἐν Ἰλιάδι, the phrase that signals text-reuse; for the second we identify as analysed text the second instance of the quotation. The **Reused Text** is the same for both, the Homeric line without punctuation. Both point to the same **Alignment URN**, and both share the same **Analytical Edition URN**.

Identity and difference are preserved in their appropriate places. Athenaeus is reusing the same Iliadic lines twice, recognizing that they are the same line. So every citation to an *Iliad*, both our alignment URN and our analytical edition URN maintain identity. Likewise, the textual content of the reuse is identical, because the difference, the punctuation, is explicitly a commentary on the text, independent of the reuse; that difference is preserved by the strings pointed to by the **Analysed Text URN**.

3.5. Example: Zenodotus' edition of the *Iliad*

The philological value of Athenaeus' reuse of Homeric language is most readily visible at 1.21 of the *Deipnosophistae*. Here, the speaker in the text is discussing how the Homeric vocabulary for food and dining is often etymologically derived from words for 'sharing' and 'equal division' — 'loaf' (ἄρτος) from ἀραρίσκω ('fit'), 'goblet' (ἄλεισον) from ἴσον ('equal'), etc. In this context, he notes that the Homeric 'meal' (δαίς) comes from δαίω ('divide'), and asserts that, 'The poet says *daíta* only in the case of human beings, and not ever in the case of wild animals' (καὶ ἐπὶ μόνων ἀνθρώπων δαίτα λέγει ὁ ποιητής, ἐπὶ δὲ θηρίων οὐκ ἔτι) (1.21). And with this etymological framework, Athenaeus' speaker

addresses a question of Homeric textual criticism, namely the text of *Iliad* 1.5 in the edition (ἔκδοσις) of Zenodotus.²¹

ἀγνοῶν δὲ ταύτης τῆς φωνῆς τὴν δύναμιν Ζηνόδοτος ἐν τῇ κατ’ αὐτὸν ἐκδόσει γράφει: ‘^Aαὐτοὺς δὲ ἐλώρια τεῦχε κύνεσσιν | ^Bοἰωνοῖσι τε **δαῖτα**’ (*Iliad* 1.4–1.5), τὴν τῶν γυπῶν καὶ τῶν ἄλλων οἰωνῶν τροφήν οὕτω καλῶν, μόνου ἀνθρώπου χωροῦντος εἰς τὸ ἴσον ἐκ τῆς πρόσθεν βίας. — Athen. 1.21

But being ignorant of the force of this word, Zenodotus writes in his own edition: ‘^AAnd made them feasts for dogs ^Band **meals** for birds’ (*Iliad* 1.4–5), in this way naming the feeding of vultures and other birds, while only human beings advance out of a former violence to a condition of equality.

This reading is preserved only here, in Athenaeus (although the Byzantine manuscripts of the *Iliad* preserve a *diple peri stigmenē* by *Iliad* 1.4–1.5, with the scholia attributing that editorial mark to Zenodotus; see *ad* 1.4–1.5 on the Venetus A.²²

This is important reuse. We document it following the pattern of the previous examples, with one important difference. Because it comprises fragments of two Homeric lines, we have two records, one for the reused text that is the second half of *Iliad* 1.4, and the other for the first half of *Iliad* 1.5. We can align each of these to the corresponding passages in the Perseus edition. We record the **Analytical Edition URN** differently. In each previous example, we were recording fragments of ‘Athenaeus’ *Iliad*. Here Athenaeus is explicitly citing Zenodotus’ edition of the *Iliad*, no longer extant. So rather than the URN for ‘Athenaeus’ *Iliad*, we identify these two lines with a citation, urn:cts:greekLit:tlg0012.tlg001.**og12**: that marks this as a fragment of a different edition, which we will document as ‘Zenodotus’ *ekdosis* of the *Iliad*, according to Athenaeus.’

Instance	Field	Value
A	Analysis Record URN	urn:cite:opdata:ahri:100
A	Sequence	100
A	Analysed Text URN	urn:cts:greekLit:tlg0008.tlg001.berti:1.21@αὐτοὺς[1]-1.21@δαῖτα[6]
A	Reused Text	αὐτοὺς δὲ ἐλώρια τεῦχε κύνεσσιν
A	Alignment URN	urn:cts:greekLit:tlg0012.tlg001.perseus-grc1:1.4@αὐτοὺς[1]-1.4@κύνεσσιν[1]
A	Analytical Edition URN	urn:cts:greekLit:tlg0012.tlg001.og102:1.4

²¹ Athenaeus calls Zenodotus’ edition an ἔκδοσις, which Nagy, following Montanari, translates as ‘edition’, as opposed to a διόρθωσις, ‘act of corrective editing’ (G. Nagy, *Homer’s text and language* (Chicago, IL 2004) 4§21–§25; F. Montanari, ‘Zenodotus, Aristarchus and the ekdosis of Homer’, in *Editing texts: Texte edieren*, ed. G. W. Most (Göttingen 1998) 1-21); see online at: <http://chs.harvard.edu/CHS/article/display/3379>.

²² See scholion on 1.4 in the Venetus A MS: <http://www.homermultitext.org/hmt-digital/scholia?urn=urn:cts:greekLit:tlg0012.tlg001.msA:1.4>, and Dindorf (W. Dindorf and E. Maass, *Scholia Graeca in Homeri Iliadem: ex codicibus aucta et emendata* (Oxonii 1875)); also, Cauer, who was an early scholar to raise the question of whether Aristarchus’ reading of οἰωνοῖσιν τε πᾶσι was a conjecture or based on textual evidence. (P. Cauer, *Grundfragen der Homerkritik* (Leipzig 1895) 20).

Instance	Field	Value
B	Analysis Record URN	urn:cite:opdata:ahri:101
B	Sequence	101
B	Analysed Text URN	urn:cts:greekLit:tlg0008.tlg001.berti:1.21@ αὐτοῦς[1]-1.21@δαῖτα[6]
B	Reused Text	οἰωνοῖσι τε δαῖτα
B	Alignment URN	urn:cts:greekLit:tlg0012.tlg001.perseus-grc1:1.5@ οἰωνοῖσι[1]-1.5@πᾶσι[1]
B	Analytical Edition URN	urn:cts:greekLit:tlg0012.tlg001.og102:1.5

3.6. Example: Homeric allusion

The characters in Athenaeus often refer obliquely to Homeric evidence to support assertions. In *Deipnosophistae* 11.16, a speaker asserts that the gods love ‘cups’, invoking as evidence Homeric language from *Iliad* 4.2–4.4.

καὶ θεοφιλῆς δὲ τὸ ^Aποτήριον ^B‘χρυσέοις’ γοῦν ^C‘δεπάεσσιν ἀλλήλους δεξιῶνται’

And the ^Acup is beloved by the gods: ^B‘With golden’, at any rate, ^C‘cups they welcome each other.’

— Ath. 11.16

Οἱ δὲ θεοὶ παρ Ζηνὶ καθήμενοι ἡγορόωντο
 χρυσέῳ ἐν δαπέδῳ, μετὰ δὲ σφισι πότνια Ἥβη
 νέκταρ εἰνοχόει· τοὶ δὲ ^B‘χρυσέοις’ ^{AC}‘δεπάεσσι
 δειδέχατ’ ἀλλήλους, Τρώων πόλιν εἰσορόωντες·
 — *Iliad* 4.1–4

And the gods, sitting in the presence of Zeus, on the golden floor, were conversing, and among them Queen Hēbē was pouring nectar. And indeed with ^Bgolden ^{AC}cups they were greeting each other, looking down on the city of the Trojans.

To document this instance of text-reuse, we must align the sentence in Athenaeus with two lines of the *Iliad*. We want to assert that, in Athenaeus, both ποτήριον and δεπάεσσιν are ‘mapped’ to the Homeric δεπάεσσι at *Iliad* 4.3. We also want a precise alignment between χρυσέοις, δεπάεσσιν, and ἀλλήλους, which are direct matched between the Homeric text and Athenaeus (although in different order), and between δεξιῶνται in Athenaeus and the elided Epic form δειδέχατ’ at *Iliad* 4.4. We capture five records of text-reuse in our data.

For each of the five our **Analysed Text URN** will be the same:

urn:cts:greekLit:tlg0008.tlg001.berti:11.16@καὶ[6]-
 11.16@δεξιῶνται[1]

The five will have, as their **reused text** the five words from Athenaeus, with their order in the Athenaeus text captured by a sequence number. We begin by aligning Athenaeus’ ποτήριον with δεπάεσσιν at *Iliad* 4.3. We also align Athenaeus’ χρυσέοις and χρυσέοις. Our **Alignment URN** for both of these is urn:cts:greekLit:tlg0012.tlg001.og101:4.3, in effect asserting that ‘In the “*Iliad* according to Athenaeus” there is an instance of line 4.3, whose textual content is ποτήριον χρυσέοις δεπάεσσιν.’

Instance	Field	Value
A	Analysis Record URN	urn:cite:opdata:ahri:401
A	Sequence	401
A	Analysed Text URN	urn:cts:greekLit:tlg0008.tlg001.berti:11.16@καὶ [6]-11.16@δεξιούνται [1]
A	Reused Text	Ποτήριον
A	Alignment URN	urn:cts:greekLit:tlg0012.tlg001.perseus-grc1:4.3@δεπάεσσι [1]
A	Analytical Edition URN	urn:cts:greekLit:tlg0012.tlg001.og101:4.3

This instance of text-reuse, identified with a URN and located in a sequence, analyses the string καὶ ... δεξιούνται in Ath. 11.16. The *reused text* we are capturing is the word ποτήριον in Athenaeus' text. We are aligning it with the word δεπάεσσι at *Iliad* 4.3, in the Perseus Greek edition. ποτήριον will be the first part of the text-content of *Iliad* 4.3 in our 'analytical edition', that is, 'The *Iliad* according to Athenaeus'.

Instance	Field	Value
B	Analysis Record URN	urn:cite:opdata:ahri:402
B	Sequence	402
B	Analysed Text URN	urn:cts:greekLit:tlg0008.tlg001.berti:11.16@καὶ [6]-11.16@δεξιούνται [1]
B	Reused Text	χρυσέοις
B	Alignment URN	urn:cts:greekLit:tlg0012.tlg001.perseus-grc1:4.3@χρυσέοις [1]
B	Analytical Edition URN	urn:cts:greekLit:tlg0012.tlg001.og101:4.3

This instance of text-reuse, identified with a URN and located in a sequence, analyses the same string as the previous instance. The *reused text* we are capturing is the word χρυσέοις in Athenaeus. We are aligning it to the word χρυσέοις at *Iliad* 4.3 in the Perseus Greek edition. χρυσέοις will be the second part of the text-content of citation-node 4.3 in our analytical edition.

Instance	Field	Value
C	Analysis Record URN	urn:cite:opdata:ahri:403
C	Sequence	403
C	Analysed Text URN	urn:cts:greekLit:tlg0008.tlg001.berti:11.16@καὶ [6]-11.16@δεξιούνται [1]
C	Reused Text	δεπάεσσι
C	Alignment URN	urn:cts:greekLit:tlg0012.tlg001.perseus-grc1:4.3@δεπάεσσι [1]
C	Analytical Edition URN	urn:cts:greekLit:tlg0012.tlg001.og101:4.3

This instance of text-reuse analyses the same string as the previous two sequences. Here we associate Athenaeus' δεπάεσσιν with the form δεπάεσσι at *Iliad* 4.3. Note that we have now identified two words (both referring to a 'cup') in Athenaeus to the same string in *Iliad* 4.3. The first (Instance A, above) we analyse as text-reuse because it is Athenaeus signalling a Homeric allusion that provides insight into the gods' love of 'cups'; the second, because it directly echoes the Homeric language in the passage.

The final two instances we document align the two words ἀλλήλους δεξιῶνται in Athenaeus to δειδέχατ' ἀλλήλους at *Iliad* 4.3. We could have captured this as a single record, but we chose to be more granular to highlight the fact that Athenaeus is paraphrasing (albeit very closely) rather than quoting. His verb δεξιῶνται alludes to the Homeric verb δειδέχατ', while his reciprocal pronoun ἀλλήλους is a direct quotation.

4. Conclusions

The six data records give us wide latitude for citing, manipulating, visualizing, and navigating our documented instances of text-reuse in the *Deipnosophistae*. Any specific instance of reuse can be cited using the **Analysis Record URN**, and using a CITE-service it can also be resolved, along with all associated data. Because these instances are in a collection ordered by the **Sequence** property, we can retrieve a range of instances, or order by sequence (in the text of Athenaeus) any subset of instances retrieved by a query.

The **Analytical Edition URN** allows us to construct an edition of the *Iliad*, according to the text of Athenaeus, cite it and use it as we would any other CTS text. For example, based on the fourth example above, we can cite 'Athenaeus' edition of the *Iliad*, Book 24, line 476' as urn:cts:greekLit:tlg0012.tlg001.ogl01:24.476, which resolves to ἔσθων καὶ πίνων ἔτι καὶ παρέκειτο τράπεζα. We could likewise ask for 'Athenaeus' edition of the *Iliad*, Book 24' with the CTS-URN urn:cts:greekLit:tlg0012.tlg001.ogl01:24, and retrieve all reused text from *Iliad* 24, as documented in the *Deipnosophistae*, in Iliadic text sequence.

Combining the properties of **Reused Text** and **Alignment URN** would allow us to generate a hybrid edition of the *Iliad* that contains the Perseus/Allen text where *Athenaeus is silent*, but substitutes Athenaeus' text where he reuses the *Iliad*. We can likewise programmatically discover precisely where, for example, the Perseus/Allen text differs from Athenaeus' text. For example, querying our data for reuse that aligns with urn:cts:greekLit:tlg0012.tlg001.perseus-grc1:9.119 would show us that the Perseus/Allen text has:

ἀλλ' ἐπεὶ ἀσάμην φρεσὶ λευγαλέησι πιθήσας

while Athenaeus has:

ἀλλ' ἐπεὶ ἀσάμην φρεσὶ λευγαλέησι πιθήσας | ἢ οἶνω μεθύων ἢ μ' ἔβλαψαν θεοὶ
αὐτοί

This data model may strike readers as verbose. But brevity is not a virtue if it comes at the expense of comprehensive documentation. Text-reuse is complex, and documenting it requires us to capture details of two texts while aligning their textual semantics on two axes: the vertical (the citation-hierarchy) and the horizontal (the textual content of a citation). We are still in the early stages of our work on Athenaeus, but our progress to date has allowed us to explore the continuum of text-reuse from straightforward direct quotation, aligning 1:1 with a source edition, through paraphrase, to tenuous references to shared topics, and to

examine in each instance the extent and nature of reuse. As we go forward, the obvious area for improvement is in the workflow for capturing these analyses and the tools that support that workflow. We want observations to constitute an ordered collection, for example, whose sequence is determined by the text of Athenaeus. A tool that used the sequence of citation elements in the *Deipnosophistae* and their textual contents to sort text-reuse observations and explicitly document their sequence. We have already under development a ‘Citation Alignment Tool’, which facilitates generating CTS-URNs with extended subreferences by means of a web-based graphical interface.

Editions of Athenaeus have commonly included citations to other works, where Athenaeus quotes them directly. Some editions include citations, selectively, to works where Athenaeus is paraphrasing or alluding; these are necessarily selective, and necessarily subject to disagreement. In the case of any text-reuse, the limitations of the physical page, and the need to preserve legibility, preclude truly comprehensive and precise identification of text-reuse. Our approach separates this documentation from the digital edition. This allows us to be as comprehensive as our industry allows. It allows alternate analyses, when scholars may differ in their opinions about what constitutes text-reuse, and it allows us to compare and judge conflicting analyses with precision.

The resulting data is agnostic of the format of the digital edition to which it points — we are working with an electronic edition of the *Deipnosophistae* in TEI-XML format, but no aspect of our documentation of text-reuse assumes TEI-XML or even XML.²³ Our data is recorded as `.csv` (comma-separated-values) tables in plain-text files, in the UTF-8 encoding. While we have certain ideas for visualizing, browsing, and manipulating this data, by recording our observations in a ‘lowest common denominator’ format, we hope to ensure that future scholars can easily copy and repurpose our work. The data from this ongoing project of analysis is publically visible at <http://digitalathenaeus.github.io>. As the project reaches specific milestones, we will publish formally versioned releases of the data, fully documented, in non-proprietary file formats under an open-content license.

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²³ In parallel with this work of documenting text-reuse, we are re-editing our digital edition of the *Deipnosophistae*, working to normalize the Greek orthography and punctuation and to remove embedded references (in favor of external indexing such as described here). We will publish the resulting XML file once editing is complete, automatically validated, and verified by human editors.